

April 15th, 2016

WM Fares Architects

3480 Joseph Howe Drive, 5th Floor
Halifax, Nova Scotia
B3L 4H7



Attention: Cesar Saleh, P.Eng

RE: TRAFFIC IMPACT STATEMENT: AGRICOLA STREET

DesignPoint Engineering and Surveying Ltd. is pleased to submit this Traffic Impact Statement (TIS) in support of your Development Application to the Halifax Regional Municipality (HRM) for Civic 2440, 2442, and 2448 Agricola Street, Halifax, NS (PIDs 00151316, 00151308, 00151290).

This report will assess the potential traffic impacts of the proposed building development and includes the following:

- Background;
- Existing traffic volumes and site generated traffic;
- Site distance, access review, and consideration for parking; and
- Conclusions.

This statement was prepared utilizing the HRM Guidelines for the Preparation of Transportation Impact Studies.

Background

The five story apartment building is located on Agricola Street in Halifax, NS. It is located just south of the intersection of Agricola Street and Robert Street and just north of the intersection of Agricola Street and West Street. Currently, these properties consist of 10 apartments, 1000 SF of commercial space, and on site parking. This land use is consistent with what is being proposed. The proposed development will consist of 30 apartments and 3220 SF of ground floor commercial space with ten parking spots.

Agricola Street is a two lane urban road cross section with on street parking and sidewalks. It is classified as a collector roadway and has a posted speed limit of 50 km/h adjacent to the site. In the vicinity of the site there is a combination of one-hour parking, fifteen minute parking, unrestricted parking, and loading zones. The neighborhood consists of residential and commercial properties and is in close proximity to downtown Halifax, and is centrally located on the Halifax peninsula which allows for people who live at this location to walk, bicycle, or take transit to work and recreational activities. The site is located in the centre of a multitude of routes within the Halifax Transit system and provides excellent access to all routes servicing North Street, Gottingen Street, Cornwallis Street, and Robie Street.

Figure 1 below shows the proposed site plan.

AGRICOLA STREET DATA TABLE (22 APRIL 2016) OPTION 1					
LEVEL	STUDIO	1BR	1BR + 50N	2BR	TOTAL
200-400	8	8	-	8	24
500	-	2	1	2	5
TOTALS	8 (32%)	12 (42%)	1 (3%)	5 (27%)	30
DENSITY					
1 SR UNITS	22 x 2 pd			44	
2 SR	8 x 2.25 pd			18	
TOTAL				62	
PROPERTY AREA				8,388 SF	
LOT COVERAGE				± 6,879 SF (79%)	
GROUND FLOOR COMMERCIAL RETAIL AREA:				± 3,220 SF	
TOTAL BELOW GRADE PARKING				± 10	

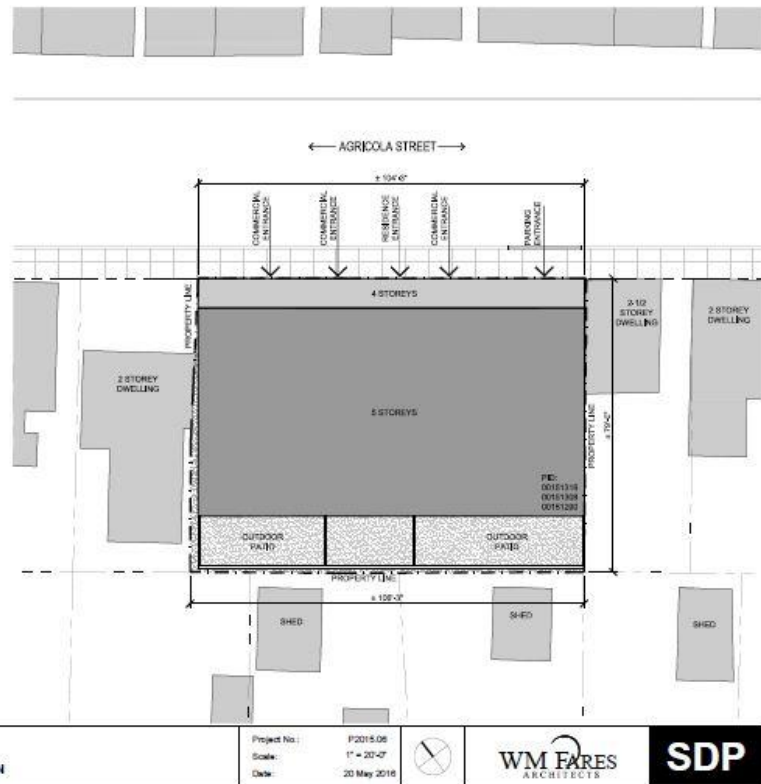


Figure 1: Site Plan for 2440-2448 Agricola Street

Existing Traffic

Traffic counts were received from HRM. Based on October 2014 traffic counts at Agricola Street at North Street approximately 655 vehicle trips are on Agricola Street during the peak AM period and approximately 895 during the peak PM period. The trips generated by the existing site would have been captured in these counts.

Site Generated Traffic

The proposed development will consist of a new five (5) story building with 30 residential units and 3220 SF of ground floor commercial space. ITE trip generation rates contained in the *Institute of Transportation Engineers Trip Generation Manual, 9th Edition* document were used to compare the existing use and the proposed use. A summary of the AM and PM peak hour site trip generation results are contained in Table 1 for Land Use Code 220, Apartments and Land Use Code 826, Speciality Retail Center for both existing and proposed.

Table 1: Trip Generation for Existing and Proposed Development

Land Use ¹	Units	Trip Generation Rates				Trips Generated			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Trip Rate	Total	Trip Rate	Total	In	Out	In	Out
Existing									
Apartments (Land Use Code 220) 10 units	Per dwelling unit	0.51	5	0.62	6	1 (20%)	4 (80%)	4 (65%)	2 (35%)
Commercial (Land Use Code 826) 1000 SF	Per 1000 SF of gross floor area	6.84	7	5.02	5	3 (48%)	4 (52%)	3 (56%)	2 (44%)
Total			12		11	4	8	7	4
Proposed									
Apartments (Land Use Code 220) 30 units	Per dwelling unit	0.51	15	0.62	19	3 (20%)	12 (80%)	12 (65%)	7 (35%)
Commercial (Land Use Code 826) 3220 SF	Per 1000 SF of gross floor area	6.84	22	5.02	16	11 (48%)	11 (52%)	9 (56%)	7 (44%)
Total			37		35	14	23	21	14
Total New Trips (Proposed Minus Existing)									
Total			25		24	10	15	14	10

¹- ITE trip rate calculated using the AM and PM hour of adjacent traffic between 7-9 AM and 4-6 PM.

This results in the site generating 25 two way new vehicles trips (10 entering, 15 exiting) during the AM peak period and 24 two-way new vehicle trips (14 entering and 10 exiting) during the PM peak period. These new trips would be conservative as most people heading to the proposed development would likely be from the neighbourhood and would walk or bicycle to the site or be trips already on Agricola Street and be considered pass-by trips. The existing traffic volumes that were received by HRM included the current residential and commercial trips associated with this site. The additional 20 residential units and 2220 SF of commercial space is not expected to add significant vehicle trips and the existing street capacity and on street parking can accommodate this small increase.

Site Distance

The existing building currently abuts the sidewalk. The proposed building will also abut the sidewalk. Access to the on site parking will be made directly from Agricola Street onto the site similar to what exists today. A review of the available sightlines along Agricola Street was carried out at the proposed driveway access. The review was based on the guidelines contained in the *Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads*. These guidelines were used to determine the appropriate minimum stopping sight distance (SSD) criteria. The posted speed limit on Agricola Street is 50 km/h adjacent to the site. At the location of the parking access, Agricola Street has a flat vertical alignment and a straight horizontal alignment. For a design speed of 50 km/h, the minimum stopping site distance is 65 m. The available driver sight lines to the north and south along Agricola Street are greater than 65 m. On street parking may occasional inhibit sight lines, but this is no different than any street on the Halifax peninsula and is no different than what exists today.

Consideration for Parking

The proposed site plan allows for ten vehicles to park on site. As indicated previously, this neighbourhood is centrally located on the Halifax peninsula and is in close proximity to downtown Halifax and many of the residents and patrons to the development will likely not use a vehicle to travel to and from the site. Currently Agricola Street allows for on street parking in the form of one-hour parking 8AM-6PM Mon-Fri directly in front of the site, fifteen minute parking to the south of the site, and unrestricted parking to the north, south, and along the east side of Agricola Street. In addition, loading zones exist directly across the street and to the south of the site that can help accommodate the commercial component of the site. Therefore, there is ample parking on the site and on the surrounding street to accommodate this development.

Conclusions

The following conclusions were assembled from the traffic impact assessment:

- The Proposed Site: The proposed development will consist of a new five (5) story building with 30 residential units and 3220 SF of ground floor commercial space which will replace the two story building with 10 residential units and 1000 SF of ground floor commercial space.
- Halifax Transit: The site is located in the middle of many transit routes that run along North Street, Cornwallis Street, Robie Street, and Gottingen Street which are all within walking distance of the site.
- Agricola Street: Has an urban cross section with curb and gutter and sidewalk on both sides of the street and a posted speed limit of 50 km/h adjacent to the site. It is within walking distance to downtown Halifax and many of Halifax's recreational facilities.
- Site Generated Trips: The proposed development will generate 25 new trips in the peak AM and 24 new trips in the peak PM. These new trips would be conservative as most people heading to the proposed development would likely be from the neighbourhood and would walk or bicycle to the site or be trips already on Agricola Street and be considered pass-by trips.
- Site Distance and Access Review: The proposed development has access directly onto Agricola Street. The parking access location is similar to what exists today. For a design speed of 50 km/h, the minimum stopping site distance is 65 m. The available driver sight lines to the north and the south of the site are greater than 65 m.
- Consideration for Parking: The site proposes to accommodate 10 vehicles. Additional parking can be accommodated on street directly adjacent to the site, as well as to the north, south, and east of the site.

In summary, given the scale of the proposed development it is expected to have minimal impacts on the operational capacity of Agricola Street and the surrounding roadway network as many people who live and visit the proposed development will do so by either walking, bicycling, or pass by trips.

Sincerely,

DesignPoint Engineering & Surveying Ltd.

Original Signed

Tanya Davis, P.Eng.
Senior Traffic Engineer

